DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
National Center for HIV, STD and TB Prevention
Division of Tuberculosis Elimination

Advisory Council for the Elimination of Tuberculosis
February 15-16, 2006
Atlanta, Georgia

Record of the Proceedings

TABLE OF CONTENTS

ATTACHMENT 1

List of Participants

ACET Members

Dr. Masae Kawamura, Chair
Dr. Michael Fleenor
Dr. Jennifer Flood
Dr. Richard Fluck
Dr. David Gonzales
Ms. Harriett Gray
Mr. Shannon Jones III
Ms. Sara Loaiza
Dr. Barbara Seaworth

*Ex Officio*s and Liaisons

Dr. William Baine (AHRQ)
Dr. John Bernardo (NTCA)
Dr. Amy Bloom (USAID)
Dr. Henry Blumberg (IDSA)
Dr. Fred Gordin (ATS)
Ms. Betty Hawks (HHS/OMH)
Dr. Michael Puisis (NCCHC)
Dr. Lee Reichman (ACCP)
Dr. Diana Schneider (DIHS)
Ms. Rachel Stricof (APIC)
Dr. Litjen Tan (AMA)
Dr. Nancy Warren (APHL)
Dr. Theresa Watkins-Bryant (HRSA)

Designated Federal Official

Dr. Ronald Valdiserri,
Executive Secretary

CDC Representatives

Dr. Julie Gerberding, CDC Director
Dr. Kevin Fenton, NCHSTP Director
Dr. Kenneth Castro, DTBE Director
Mr. John Anderton
Ms. Sara Bingham
Dr. Nickolas DeLuca
Ms. Paulette Ford-Knights
Ms. Judy Gibson
Dr. Stefan Goldberg
Ms. Teresa Goss
Ms. Andrea Hachat (Contractor)
Dr. Michael Iademarco
Dr. Paul Jensen
Dr. Ram Koppaka
Ms. Ann Lanner
Dr. Philip LoBue
Ms. Suzanne Marks
Mr. Patrick Moonan
Dr. Scott McCoy
Dr. Michael Melneck
Dr. Jan Nicholson
Dr. Farah Parvez
Dr. Drew Posey
Dr. Hugh Potter
Ms. Margie Scott-Cseh
Ms. Brooke Steele
Dr. Phillip Talboy
Dr. Zachary Taylor
Dr. Wanda Walton
Dr. David Weissman

Guest Presenters and Members of the Public

Mr. Alex Mastro (The Galloway School)
Ms. Carol Pozsik (National Tuberculosis Controllers Association)
Ms. Mollie Rodriguez (Social and Scientific Systems)
Mr. John Seggerson (National Coalition for the Elimination of Tuberculosis)
Dr. Gary Simpson (New Mexico Department of Health)
Ms. Mary Lou Valdez (Department of Health and Human Services)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

ADVISORY COUNCIL FOR THE ELIMINATION OF TUBERCULOSIS
February 15-16, 2006
Atlanta, Georgia

Minutes of the Meeting

The Department of Health and Human Services (HHS) and the Centers for Disease Control and Prevention (CDC) convened a meeting of the Advisory Council for the Elimination of Tuberculosis (ACET). The proceedings were held on February 15-16, 2006 at CDC's Corporate Square Facility, Building 8, in Atlanta, Georgia.

Opening Session

Dr. Masae Kawamura, the ACET Chair, called the meeting to order at 8:31 a.m. on February 15, 2006. She welcomed the attendees to the proceedings and opened the floor for introductions. The list of participants is appended to the minutes as Attachment 1.

Dr. Ronald Valdiserri, the ACET Executive Secretary, announced that ACET meetings are open to the public and all comments made during the proceedings are a matter of public record. Members should be mindful of potential conflicts of interest identified by the CDC Committee Management Office and recuse themselves from voting or participating in these discussions.

Dr. Valdiserri also announced that ACET's membership will soon undergo a significant transition because the terms of the following five members will expire on June 30, 2006: Drs. Michael Fleenor, David Gonzales and Masae Kawamura, Ms. Harriett Gray and Ms. Sara Loaiza. CDC has initiated the process of submitting nomination packets to the Office of the HHS Secretary, but has not been informed of any new appointments to ACET at this time. To facilitate a smooth transition to the new membership, Dr. Valdiserri encouraged the five members whose terms will expire on June 30, 2006 to attend the next ACET meeting.

Update by the Acting Director for the National Center for HIV, STD and TB Prevention (NCHSTP)

Dr. Kevin Fenton was recently appointed as the new NCHSTP Director and covered the following areas in his first report to ACET. The Coordinating Center for Infectious Diseases (CCID) has been undergoing an extensive reorganization over the past six months with the establishment of four new national centers (NCs) that focus on common programs, scientific areas and partners. NC 1 is responsible for most vaccine-preventable and respiratory diseases. NC 2 is responsible for food-borne, water-borne, vector-borne and zoonotic diseases. NC 3 houses NCHSTP and is responsible for HIV, STDs, TB and hepatitis. NC 4 is responsible for preparedness and response, emerging infections, quarantine and infection control.

CCID's new organizational structure reflects a redistribution of divisions and programs within NCHSTP, the National Center for Infectious Diseases (NCID), the National Immunization Program (NIP), and the Coordinating Center for Health Information and Service. NC 3 is basically the same as NCHSTP's traditional structure, but with the new addition of the Division of Viral Hepatitis (DVH). NCHSTP looks forward to officially incorporating DVH into the center on October 1, 2006, but informal consolidation efforts are now underway.

Another major change in CCID's organizational structure is support by the Strategic Business Unit and Strategic Science and Program Unit. The two units will create synergies and efficiencies in business practices, science, services and program support and will also be responsible for CCID's travel, other administrative functions, cross-cutting strategic scientific activities and programmatic issues. For example, the units would oversee the development of workgroups for surveillance, health disparities and other areas that are relevant to all infectious diseases.

CCID has established the following time-line to completely stand-up the new structure by October 1, 2006. The organizational design will be finalized in February 2006 by developing names, determining identities and assessing individual structures of each NC; completing each structure at division and branch levels; designing Office of Director offices for each NC; and finalizing the design of the two strategic units. In addition to Dr. Fenton's leadership of NC 3 as the NCHSTP Director, directors for the other NCs have been named as well. Dr. Anne Schuchat will lead NC 1 as the NIP Director; Dr. Lonnie King will lead NC 2; and Dr. Rima Khabbaz will lead NC 4 as the NCID Director.

Preparations to implement CCID's new organizational design will continue until October 1, 2006. These activities will include obtaining formal approval for the structure from

CDC, HHS and Congress, realigning the budget, improving the overall process, assessing technologies, and planning for implementation. The "National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention" (NCHHSTP) was proposed as the new name for NC 3. NCHHSTP's six draft strategic priorities for 2006 are outlined below.

To "maximize public health impact," staff, strategies, goals, investments and performance will be aligned to maximize NCHHSTP's impact on the health and safety of populations. NCHHSTP will take three key actions in support of this strategic priority. The elimination of TB, syphilis and perinatal HIV will be accelerated. The implementation of hepatitis B, human papillomavirus and other vaccine-preventable STDs will be enhanced. The incidence and consequences of HIV, hepatitis C and STDs will be decreased, particularly in racial/ethnic minorities.

To "provide leadership," NCHHSTP's unique expertise, partnerships and networks will be leveraged to improve the health system. NCHHSTP will take three key actions in support of this strategic priority. NCHHSTP's governance relationships and strategic priorities will be clarified and implemented. Skills and capacity of NCHHSTP leadership will be assessed, supported and developed. Leadership will continue to be provided at both national and international levels to improve health outcomes related to HIV, viral hepatitis, STD and TB prevention.

To "strengthen public health science," knowledge and innovations that persons need to protect their health now and in the future will be created and disseminated. NCHHSTP will take three key actions in support of this strategic priority. Health disparities research will be incorporated, promoted and supported. The ethical framework for HIV, viral hepatitis, STD and TB research will be adapted and refined. Workforce development will be promoted through internal and external research funded by CDC and its partners.

To "promote customer centricity," the tools persons desire and need to choose health will be marketed. Programs that are culturally appropriate and acceptable to specific populations will continue to be developed through community planning and partnerships. NCHHSTP will take two key actions in support of this strategic priority. Existing partnerships will be sustained and strengthened. New and non-traditional partnerships will be developed to enhance the prevention and control of HIV, viral hepatitis, STD and TB.

To "ensure accountability," NCHHSTP will sustain public trust and confidence by making the most efficient and effective use of human and financial investments.

NCHHSTP will take three key actions in support of this strategic priority. Information about HIV, viral hepatitis, STD and TB prevention investments will be more easily and readily available to the public. Monitoring, evaluation and feedback systems for all prevention programs will be implemented. Feedback on critical issues will be provided to stakeholders on a timely basis and through existing and novel mechanisms.

To "strengthen global health efforts," collaborative efforts will be undertaken with international partners to expand knowledge and tools developed by CDC and promote health protection around the world. NCHHSTP will take two key actions in support of this strategic priority. The successful implementation of the President's Emergency Plan for AIDS Relief will be promoted and supported. Collaboration with global surveillance and research programs will be fostered to accelerate HIV, viral hepatitis, STD and TB prevention and control.

For all six of the 2006 draft strategic priorities, NCHHSTP will establish milestones, develop key activities and obtain input from partners. The strategic priorities will assist NCHHSTP in creating business plans and advancing these initiatives at both center and division levels. NCHHSTP also prepared a 100-day action plan focusing on accountability, communication, a healthy and happy work environment, leadership, the NCHHSTP structure, program integration and excellence, and scientific excellence. The 100-day action plan was distributed to all NCHHSTP personnel and highlights the new organizational structure to staff and external partners. NCHHSTP intends to achieve all seven milestones outlined in the 100-day action plan by May 15, 2006.

In terms of NCHSTP's current budget, a reduction of ~$1.4 million in TB funding reflects a decrease from $138.8 million in FY'05 to $137.4 million in FY'06 due to a rescission. The President's FY'07 TB budget of $136.5 million reflects a decrease of ~$1 million. Within CDC's overall program and science budget, 4% of funding will be redirected in FY'06 from "low" to "high" public health impact activities. The realignment will result in a more efficient and effective use of resources. With respect to personnel, NCHSTP's Associate Director for Laboratory Sciences transferred to another center and a staff member was appointed to act in this position.

Dr. Fenton acknowledged that the new structure, governance, personnel and addition of DVH all reflect a significant transition in NCHSTP. As the new NCHSTP Director, Dr. Fenton's priorities will be to identify a clear pathway to implement key activities in 2006 and communicate progress to staff and partners. The continued development of strategic priorities and milestones for 2006 is an exciting undertaking that will ensure NCHSTP's responsiveness to important and urgent issues throughout the year. After the 2006 strategic plan is completed, NCHSTP will expand its vision and strategic

planning efforts to focus on the future diagnosis, treatment, care, prevention and control of HIV/AIDS, viral hepatitis, STDs and TB in the United States and other countries. Dr. Fenton welcomed input and guidance from ACET on concrete actions NCHSTP can take to ensure the success of both the 2006 and long-term strategic plans.

ACET welcomed Dr. Fenton in his new role as the NCHSTP Director and took this opportunity to describe several long-standing priority issues on ACET's agenda. First, the dismal TB budget weakens capacity to take advantage of the unprecedented opportunity that is now available to advance research on TB treatment. As CDC realigns 4% of its FY'06 program and science budget and continues to focus on pandemic influenza and bioterrorism, TB may be shifted to a "low" public health activity. ACET strongly urged NCHSTP to maintain TB as a "high" public health issue because the disease results in millions of deaths all over the world.

Second, as a strategic priority in 2006, NCHSTP will maximize public health impact by decreasing the incidence and consequences of HIV, hepatitis C and STDs, particularly in racial/ethnic minorities. The exclusion of TB from this priority area is a significant oversight because the vast majority of the 10-15 million Americans infected with TB are persons of color. ACET has attempted to include TB in the HHS Health Disparities Report over the past two years and has also conducted several activities focusing on TB disparities in African Americans (AAs), Hispanics and foreign-born persons. ACET urged NCHSTP to include TB in its 2006 strategic priority to maximize public health impact.

Third, CCID's new design appears to reflect CDC's previous structure of silos in some areas. Most notably, TB and emergency preparedness and response will still be separated. During its June 2005 meeting, ACET unanimously passed a recommendation to reclassify multi-drug resistant (MDR-TB) as a Category B bioterrorism agent. TB is a readily accessible agent that can result in tremendous public havoc, but bioterrorism dollars are not allocated to use, maintain and strengthen the skills and expertise of state and local TB controllers to prepare for an event. ACET urged NCHSTP to identify opportunities to leverage bioterrorism dollars and enhance capacity in preventing and treating TB during an emergency.

Fourth, CCID should broadly communicate its new organizational structure to community-based and grassroots organizations because CDC's previous structure of silos has resulted in barriers to effectively reach and collaborate with these groups. ACET urged NCHSTP to include the "engagement of community-based and grassroots organizations" as an additional milestone in its 100-day action plan.

Dr. Fenton made several remarks to address ACET's concerns. First, criteria have been established to define CDC's public health activities as "low" or "high" impact. Activities will be evaluated based on existing evidence of effectiveness, capacity to impact public health, and high or low public profile. All infectious diseases will remain as high priorities at both agency and center levels. The realignment of CDC's FY'06 program and science budget will only occur within existing budget line items. For example, TB dollars will not be reallocated to fund hepatitis. The Division of Tuberculosis Elimination (DTBE) has already undertaken this effort by shifting funds to target areas with a high TB incidence.

Second, NCHSTP's six strategic priorities for 2006 are still in the draft stage and will be widely distributed to both internal and external partners for review and input. Third, CCID is making every effort to eliminate silos in its new design. Most notably, the two new strategic units will be responsible for identifying cross-cutting activities across all CCID centers. Moreover, the four new center directors have taken initial steps to integrate activities across specific infectious diseases and translate these synergies to state and local programs. For example, DTBE has applied its TB expertise to CDC's global disease detection and pandemic influenza preparedness activities.

Report on the State of CDC

Dr. Julie Gerberding, the CDC Director, reported that a high-level and comprehensive analysis of the state of CDC is underway in terms of its ongoing activities, funding, accomplishments and broad public health impact. The CDC budget more than doubled over the past decade from ~$3 billion in FY'95 to $8 billion in FY'05. However, CDC's recent funding shows both increases and decreases over the past five years due to deficit reductions and Congressional priorities. From FY'03-FY'07, CDC's budget ranged from $7.7 billion, $7 billion, $7.9 billion, $8.4 billion and $8.2 billion.

The fluctuations in CDC's budget are not equally distributed across programs. The Department of Commerce developed the Biomedical Research and Development Price Index (BRDPI) to account for increases in the cost of conducting science each year. The following results were seen when the BRDPI was applied to CDC's 2001 budget to calculate adjusted changes in funding. When adjusted for the BRDPI, the Strategic National Stockpile, terrorism, Global AIDS, Vaccines for Children, birth defects, global immunization and environmental health programs accounted for increases in CDC's budget since 2001. The Strategic National Stockpile and Vaccines for Children Program collectively account for ~$3 billion of CDC's $8 billion budget.

When adjusted for the BRDPI, the health statistics, chronic disease, immunization, environmental health laboratory and infectious disease control programs accounted for stable funding in CDC's budget since 2001. When adjusted for the BRDPI, activities in the areas of occupational safety, injury prevention, TB, STDs, public health research, domestic HIV/AIDS, leadership and management, business services support, buildings and facilities, and the VERB youth media campaign accounted for decreases in CDC's budget since 2001.

The 14% reduction in TB funding is of particular relevance to ACET, but the 30% decrease in building services support is important to all CDC grantees. CDC is struggling to maintain a high level of customer service, but its $300 million base budget for business services support was cut by $60 million over the last two years. CDC can no longer make the same commitment to its customers due to requirements for expansion in other areas.

Of CDC's overall budget, 67% is discretionary, 23% is mandatory, and 10% is from other appropriations through interagency agreements with other federal agencies. "Mandatory" funds must be allocated to the Vaccines for Children Program and certain other activities pursuant to federal law. "Discretionary" funds are appropriated by Congress for CDC to conduct activities under its public health authority.

CDC's FY'06 appropriation includes increases of $3.5 million for infectious diseases, $30 million for immunization, $2 million for youth violence, $5.7 million for occupational safety and health, $12 million for global disease detection, and $63.6 million for the Strategic National Stockpile. The $12 million increase for global disease detection includes an expansion from five to 11 quarantine stations at this time, but CDC's ultimate goal is to establish 25 quarantine stations at ports of entry in the United States. The new global disease detection dollars also include an expansion from five to 18 global health platforms internationally over time.

Decreases in CDC's FY'06 appropriation include $4.8 million from domestic HIV/AIDS programs, $58 million from the VERB youth media campaign, $18 million from block grants, $4.9 million from the Public Health Information Network, $60.5 million from Congressional projects, $88.6 million from terrorism state grants, and $20 million from business services. However, CDC's major increases and decreases do not reflect its FY'06 rescission of $60 million.

The FY'07 President's budget was recently announced. Increases proposed for CDC include $69 million for the Strategic National Stockpile; $3 million for botulinum toxin research; $93 million for the domestic HIV testing initiative targeting AAs, inmates and

injection drug users; $49 million for the Vaccines for Children Program; and $18 million for rent, 30% of staff pay raises and other expenses. Decreases proposed for CDC include $99 million from block grants; $129 million from buildings and facilities; $10 million from West Nile Virus activities; $77 million from pandemic planning with one-time funding from the Department of Defense; $14 million from the anthrax research program; $38 million from administrative and information technology savings; and $29 million to eliminate CDC's low-impact programs.

The President's FY'06 budget was the first appropriation since the Reagan Administration that proposed a reduction in non-security discretionary spending below the level of the previous year. The FY'06 budget was also the first time since 1981 that CDC's discretionary funding in the current year was below the previous year. In terms of other federal agencies, the National Institutes of Health (NIH) has indicated to both new and continuation grantees that funding will be reduced by 2.3% across the board. The Health Resources and Services Administration (HRSA) has provided similar guidance to its extramural grantees.

CDC will be impacted by the FY'06 budget both internally and externally. Intramural projects conducted by CDC staff and extramural activities implemented by grantees will be 1% less than FY'05 funding across the board. The Public Health Transfer Fund is a tax of ~1% that will be applied to TB and several other programs. An assessment of 0.3% will be applied across the board for all CDC divisions to equally pay for three activities: (1) minority health grants; (2) public health grants to core organizations; and (3) the unfunded mandate for Homeland Security Presidential Directive 12 and $15 million for continued operation of CDC's Global Communications Center.

Dr. Gerberding acknowledged that the FY'06 and proposed FY'07 budgets reflect a shift in CDC's portfolio to emphasize influenza, terrorism, the Strategic National Stockpile and other urgent threats. Although the funding will be targeted to critical and high-priority programs identified by the Administration and Congress, the stronger focus on these activities will result in budget deficits and significant adverse impacts in implementing CDC's traditional public health initiatives.

On the one hand, Dr. Gerberding strongly believed in the importance of applying CDC's unique role, capacity, expertise and leadership to the national preparedness effort. On the other hand, the stronger emphasis on national preparedness must not minimize CDC's continued focus on public health issues that affect individuals on a daily basis. This trend is also occurring at state, local and community levels. Most notably, a large proportion of the public health workforce is transferring from traditional programs to

areas focusing on preparedness and other urgent threats because these sectors now provide more growth opportunities for personnel.

Dr. Gerberding recognized that CDC's budget in general and TB funding in particular are not encouraging to ACET, grantees and other customers. However, she urged ACET as a CDC advisory committee to expand its dialogue beyond budget issues to discuss a broader perspective. For example, changes are needed to strengthen the overall public health portfolio and appropriate strategies must be identified to sustain and protect existing public health programs of value. She explained that advocacy for TB or other specific disease categories is not likely to be an effective approach at this time. Instead, advocacy should now be broadened to solicit interest in and endorsement of more inclusive issues, such as healthy adults or healthy adolescents.

Dr. Gerberding is attempting to avoid unnecessary expenditures of the TB budget line item. Efforts are being made to apply global disease detection and border health dollars to focus on refugees and the importation of TB into the United States. The possibility exists of using CDC's increase in global disease detection dollars to build an international platform in Thailand for improved rapid detection and management of TB before persons migrate to the United States.

Dr. Gerberding will testify before CDC's appropriations committee on March 15, 2006 and will inform each member that every effort is being made to effectively manage CDC. Most notably, CDC's strategic and organizational structures have been dramatically transformed. A commitment has been made to implement new priorities, achieve goals and allocate funds to support these activities. New management has been hired to oversee these initiatives and ensure that resources are efficiently and effectively used. Dr. Gerberding welcomed input from ACET on strengthening CDC's public health portfolio in light of the upcoming budget cuts.

Dr. Gerberding also described several ongoing and future activities to strengthen CDC's outreach efforts and collaborations in the field. Influenza summits that are being held in each state provide a forum for governors, cabinets, business leaders, academic institutions, community-based and faith-based organizations (FBOs), and other leaders at state and local levels to systematically engage in dialogue with federal public health officials. In conjunction with the summits, Dr. Gerberding has been meeting with state health department officials to discuss non-influenza issues. Several state agencies noted that CDC's current processes for grants and cooperative agreements increase the difficulty for states to develop creative solutions and use resources in an integrated manner.

CDC will take several actions to respond to the concerns of states. CDC will incorporate more flexible language in its cooperative agreements with states and allow more liberal use of existing funding mechanisms within states. Proposed language in the President's FY'07 budget will allow the flexible use of up to 5% of non-terrorism dollars for priority and relevant programs within states.

CDC piloted the "Portfolio Managers Project" in Arkansas, California, Florida, New York, Ohio, Texas, Washington, DC and Washington State. CDC deployed high-level and senior public health officials to the eight jurisdictions to thoroughly analyze CDC's investments; determine gaps, current expenditures and priorities; and identify opportunities for states to allocate resources in a more flexible manner. Based on the outcomes of the pilot project, each CDC grantee will be required to explicitly state its goals and performance measures in accordance with grants language. CDC will decrease its directions and instructions to grantees on conducting activities. CDC will provide more technical support as necessary and will also give more incentives for grantees to collaborate with other grantees across cooperative agreements. CDC expects the pilot project to generate valuable lessons learned that can be applied on a national basis.

CDC's current budget allows for the deployment of full-time employees to the field without penalties to its overall budget. Each state can hire CDC experts to increase its public health capacity and infrastructure. CDC is undertaking all of these collaborative efforts due to the tremendous demands and resource requirements placed in the field. State and local health departments must develop plans and conduct exercises for bioterrorism, pandemic influenza and other urgent threats. Recent lessons learned from Hurricane Katrina demonstrate that the federal government will have a limited role in assisting states during a disaster. As a result, states must share ownership and responsibility in emergency preparedness and response.

CDC is identifying opportunities to share its responsibility for the public health agenda with businesses. A Global Health Roundtable was established with chief executive officers of Fortune 500 companies to make a strong business case for prevention. The initiative is resulting in a renewed interest among local businesses throughout the country about the quality of health protection in communities. CDC's activities to enhance outreach efforts at state, local and community levels and strengthen public health capacity and infrastructure in the field are now in the formative stages. CDC intends to solicit assistance and guidance from the Institute of Medicine in the future to develop more formal strategies in this area.

Dr. Gerberding concluded her remarks by emphasizing her firm belief that the inability to pay health benefits is a major contributing factor to the failure of the nation's health system and the closure of Fortune 500 companies throughout the country. As a result, strong and reputable leaders must be identified to oversee necessary changes in the public health system. This need now presents an opportunity to broadly demonstrate the relevance, importance and economic viability of CDC's public health leadership, expertise, abilities and activities in prevention at both domestic and global levels.

In Dr. Gerberding's professional judgment, CDC needs a $15 billion budget to adequately fund projects with a demonstrated track record of success and fill critical data gaps in prevention. CDC's $8 billion budget may appear to fall short of the ideal $15 billion budget, but the current funding is the largest in CDC's history. Dr. Gerberding emphasized that a host of solid public health activities can be implemented at federal, state and local levels with these resources.

Report on the NCID Board of Scientific Counselors (BSC) Meeting

Dr. Michael Fleenor is an ACET member and attended the BSC meeting on November 29-30, 2005 on behalf of ACET. His summary of the meeting is as follows. The BSC explored potential options to increase the synergy, effectiveness and efficiency of current advisory committees for the CCID centers. A consolidation or reorganization of these groups was proposed because CDC now spends $11 million to maintain its existing 22 advisory bodies. The BSC and ACET are two of CDC's eight advisory committees that are mandated by Congress.

The BSC identified the pros and cons of merging the current CCID advisory committees. On the one hand, a consolidated "CCID Advisory Committee" will foster opportunities for the groups to provide CDC with integrated advice on health, research and policy issues related to infectious diseases. Communication will be encouraged among the various advisory committees. CDC's costs may decrease due to a fewer number of committees, meetings per year and committee members.

On the other hand, a consolidated "CCID Advisory Committee" may be more complex and costly than the current structure because an integrated group may require more meetings per year and a much larger membership. A single advisory body for HIV/AIDS, STDs, TB and viral hepatitis may lead to tremendous public concern about the respective views, backgrounds, special interests or perspectives of each member; roles and responsibilities for providing guidance to CDC on infectious disease priorities;

and the dilution of voices and advocacy for a particular disease. For example, interest in and funding for TB are less prominent than those for HIV/AIDS.

Dr. Fleenor noted that the BSC did not develop concrete solutions for the establishment, structure, membership and implementation of a consolidated "CCID Advisory Committee." Dr. Mitchell Cohen, the CCID Director, attended the meeting and informed the BSC that CDC has also not resolved this issue and needs to engage in additional discussions.

Dr. Kawamura participated on a conference call on February 13, 2006 with chairs and executive secretaries of other advisory committees. She reported that CCID's proposed design was discussed, opportunities to consolidate existing advisory committees were explored, and input was provided on the feasibility of implementing the proposed structure. In addition to the cost of $11 million, CDC is concerned that its 22 existing advisory committees are too numerous for the CDC Director to identify critical messages from each group and provide effective responses.

CDC is considering a new structure in which eight advisory committees would be maintained for the CDC Director and each coordinating center and boards of scientific counselors would be established to advise each center. Existing advisory committees at the program level would be dissolved. The participants were concerned that the proposed structure would add another bureaucratic layer and result in additional burden to members. For example, ACET would serve as an advisory body to both CCID and the CDC Director.

The participants agreed that the additional layer would be complex and detrimental to both CDC and external members. For example, the CDC/HRSA Advisory Committee on HIV and STD Prevention and Treatment would be restructured as a board of scientific counselors to provide guidance at the center rather than division or program level. The participants were also uncertain about the distinction between the role and function of a "federal advisory committee" versus a "board of scientific counselors." Several suggestions were made for CDC to establish one CCID advisory body instead of attempting to maintain two separate groups.

The participants noted that CDC will be extremely challenged by identifying subject matter experts (SMEs) to serve as members and actively participate on both an advisory committee and a board of scientific counselors for infectious diseases. Additional advisory bodies at different levels will also decrease CDC's influence in nominating members because the Office of the HHS Secretary makes final

appointments. Dr. Kawamura confirmed that CDC will convene more meetings in the future to discuss the proposed structure of advisory committees for the CCID centers.

Dr. Valdiserri added that CDC's intention is to continue to convene the chairs and executive secretaries of all CDC advisory committees to explore options for an optimal structure for these groups. At the center level, CCID is emphasizing the need for the BSC to focus on broader infectious diseases issues beyond NCID. At the agency level, the CDC Director's Advisory Committee (CDAC) provides guidance directly to the CDC Director and recently discussed the effectiveness of its communications with other CDC advisory committees.

Dr. Valdiserri reported that several persons made suggestions during the February 2006 conference call for CDC to make process rather than structural changes. This approach is less drastic and may resolve issues related to poor communications and irregular or non-standardized reports from advisory committees to CDAC and the CDC Director. He reiterated that CDC has not made any decisions on restructuring its advisory committees at this time, but several options are being considered.

ACET pointed out that restructured or reorganized advisory committees may also impact federal partners. During the decision-making process, CDC should be mindful that the representation of SMEs from other federal agencies on CDC's advisory committees as *ex officio* members has traditionally served as mechanism to foster and strengthen interagency communication and collaboration.

DTBE Director's Report

Dr. Kenneth Castro covered the following areas in his report. DTBE designated a project leader to define a process to address recommendations made by the ACET Foreign-Born Workgroup in light of limited resources to undertake this effort. DTBE will review the available evidence, engage stakeholders, and update, disseminate and evaluate foreign-born guidelines. Two sets of guidelines were published in the *Morbidity and Mortality Weekly Report* (*MMWR*) since ACET's previous meeting: (1) investigating contacts of persons with infectious TB and using the QuantiFERON-TB (QFT) Gold test to detect *Mycobacterium tuberculosis* (*M.tb*) infection; and (2) preventing the transmission of *M.tb* in healthcare settings.

DTBE responded to multiple requests for TB epidemiologic assistance from five states, Kenya and Thailand in various settings and populations. DTBE was particularly challenged in conducting these investigations because the lowest numbers of TB cases

are now being recorded and infrastructures of TB programs are extremely weak in some parts of the country. For example, an entire county in Indiana is staffed with one medical health officer who attends to all public health issues throughout the county one day per week, a nurse who focuses on TB control and prevention less than one day per week, and one directly observed treatment (DOT) worker who covers 12 adjacent counties.

The New York City Department of Health and Mental Hygiene (NYCDHMH) informed DTBE about five Strain W MDR-TB cases. All of the cases were substance abusers and HIV-infected; three of the five cases are deceased. NYCDHMH deployed personnel and diverted a considerable amount of resources to this outbreak due to the high attack rates. Guidance about the outbreak was issued to neighboring states and Puerto Rico.

Arkansas requested cross-cutting epidemiologic assistance from CCID to review and assess case rates and trends of TB, HIV, syphilis and leprosy in the Marshallese population in the northwestern part of the state. CCID will closely collaborate with local community organizations that outreach to the Marshallese population to interview cases from the past five years. CCID will use information from the interviews to evaluate a variety of factors, make recommendations and determine interventions to reduce the risk of these conditions.

The 8th Semi-Annual TB Epidemiologic Studies Consortium (TBESC) meeting was held on December 7-8, 2005 in Denver Colorado. The TB research agenda and priorities were reviewed. The identification of research on the development of diagnostic tools for latent TB infection (LTBI) was established as a TBESC priority. The TBESC Diagnostics Workgroup submitted a proposal to compare three interferon gamma release assays for LTBI diagnosis in U.S. healthcare workers (HCWs).

CDC, Cellestis and the Food and Drug Administration explored and discussed a variety of post-marketing surveillance options for the use of new TB tests on February 17, 2006. Follow-up actions will be reported as new developments occur. The Tuberculosis Trials Consortium is conducting Study 28 to analyze the replacement of isoniazid (INH) with moxifloxacin and identify new, safe and effective TB regimens that will cure drug-susceptible TB and MDR-TB in two to four months.

CDC, the Association of Public Health Laboratories (APHL), National Tuberculosis Controllers Association and clinical laboratorians will jointly facilitate implementation of "The Future of TB Laboratory Services Task Force Report." The document can be accessed on the APHL and CDC web sites. The APHL TB Steering Committee held a

meeting in November 2005 to update the "*Mycobacterium Tuberculosis*: Assessing Your Laboratory" report and develop a cost assessment tool. Plans to convene a national TB laboratory meeting in the near future were discussed, but minimal progress has been in this effort due to a lack of funds.

DTBE served as an expert reviewer in first-stage testing of the software platform for the National Electronic Disease Surveillance System Patient Area Module for TB. Second-stage testing will be initiated in Ohio from February-May 2006. DTBE plans to incorporate an updated platform for use in the 2007 TB surveillance case count. DTBE recently asked all jurisdictions in the country that are conducting genotyping to share data in support of the development of a national report and comprehensive database. The national genotyping report will assist in addressing issues related to common characteristics of genotypes, identification of genotypes in other states, and the need to consider interstate transmission. Several states have already agreed to DTBE's request.

DTBE's recent outreach efforts include the development and dissemination of several resources in a variety of formats, such as culturally-appropriate educational materials for TB patients; a guide for primary healthcare providers on targeted tuberculin skin testing (TST) and LTBI treatment; an instruction guide on understanding the TB cohort review process; and a training guide on effective TB interview skills for contact investigations. DTBE will conduct several activities in support of World TB Day on March 24, 2006, including the publication of two articles in the *MMWR* on U.S. TB trends and the worldwide emergence of TB with extensive resistance to second-line anti-TB drugs. A World TB Day web site is now available on the CDC web site.

In response to a requirement in the FY'05 TB cooperative agreements, 53 of 68 evaluation plans were submitted in the fall of 2005. The grantees prioritized different program components to evaluate. DTBE will provide technical assistance to TB programs while the plans are implemented to increase capacity to assess the effectiveness of TB interventions. DTBE anticipates that FY'06 expenditures will exceed the budget ceiling based on the FY'05 rescission and other deficits. DTBE will solicit guidance from ACET to identify CDC's unique federal role that must be protected, develop strategies to reduce other expenditures and create effective approaches to engage external partners. DTBE will continue to engage in a robust internal process to address these concerns.

ACET advised DTBE to re-analyze the national TB incidence data to be more transparent. Annual secular trends should also be reexamined without using an interrupted y-axis.

TB and MDR-TB in Hmong Refugees

Federal Perspective. Dr. Drew Posey, of the Division of Global Migration and Quarantine (DGMQ), reported that a large-scale U.S. Resettlement Program (USRP) was opened in 2004 allowing 15,815 Laotian Hmong refugees to enter the United States. As of February 8, 2006, 14,955 Hmong refugees had resettled and 860 remained in Thailand. The resettlement was temporarily halted in January 2005 pending outcomes of investigations of active TB and MDR-TB cases in Hmong refugees in Thailand and California.

The 1991 technical instructions defined a "standard" TB screening algorithm for immigrants and refugees as a chest x-ray for persons ≥15 years of age and three acid-fast bacillus (AFB) smears for persons with chest x-rays suggestive of active TB. No cultures were required. Smear-positive persons were required to postpone travel until treatment was initiated and smear-negative results were obtained. Those individuals were allowed to complete TB therapy in the United States if a Class A waiver was obtained. A TB examination could be performed up to 12 months prior to travel for persons with no TB classification and up to six months prior to travel for persons with a TB condition. However, the potential existed for individuals to develop TB during this time lag.

To address these gaps, the standard TB algorithm was expanded in May 2004 to include *M.tb* cultures and drug susceptibility testing for refugees with TB signs or symptoms, refugees with TB or chest x-ray findings highly suspicious of TB, and refugees with negative sputum smears. The expanded TB algorithm was modified in June 2005 due to the detection of MDR-TB cases in the Thailand refugee camp and reports of active TB in both adults and children <15 years of age who had resettled in the United States. The final TB algorithm requires chest x-rays and TST for all refugees ≥6 months of age and travel within three months of screening. All refugees resettling to the United States after February 15, 2005 are screened with the final TB algorithm.

CDC's epidemiologic investigation in Thailand of the radiology facilities, treatment program and laboratory facilities showed evidence of widespread transmission throughout the refugee camp. Of 370 TB cases that were diagnosed in Thailand as of January 6, 2006, 89 were culture positive, 26 had MDR-TB, 259 completed treatment, 97 are currently undergoing treatment, five are deceased, and nine were removed from the USRP due to non-adherence to therapy. Of the 89 culture-positive cases, 47 were smear negative and six were among children <15 years of age. All 26 MDR-TB cases were resistant to INH, rifampin and streptomycin.

Several actions were taken in Thailand and the United States to enhance laboratory capacity and quality assurance, improve TB treatment for refugees, and effectively communicate with refugees. The Thailand laboratory can now process 30-40 specimens per day, report culture results within nine weeks and report drug susceptible results within eight weeks. The DOT program is implemented in Thailand in accordance with the American Thoracic Society (ATS)/CDC/Infectious Diseases Society of America (IDSA) guidelines. The DOT program is overseen and administered by four physicians and four nurses with therapy being provided six days per week. Refugees who do not comply with the DOT program are removed from the USRP.

Web site postings, radio messages and materials prepared in Hmong dialects were used to communicate the changes. DTBE, the Minnesota and Wisconsin health departments, the International Organization for Migration and the Hmong community participated in this effort. Of 14,955 Hmong refugees who resettled to 22 states as of February 8, 2006, California, Minnesota, Wisconsin, North Carolina and Michigan accounted for 96%. California alone accounted for 28 of the 48 TB cases and six of the seven MDR-TB cases in Hmong refugees after U.S. arrival. The TB case rate in Hmong refugees is 2,637/100,000 based on 417 cases in both the United States and Thailand.

The final TB screening algorithm resulted in a dramatic decline of the TB case rate in Hmong refugees from 465/100,000 to 73/100,000. CDC estimates that the TB case rate would have been nearly nine times higher with no TB screening. CDC learned several lessons based on the Hmong resettlement, such as the critical need for improved diagnostic testing, individualized treatment overseas, a shorter validity period for medical clearance, effective stateside communication, overseas screening at the program level to improve immigrant and refugee health, and a revision of the technical instructions.

CDC is addressing these gaps by working to update the 1991 technical instructions to include guidance on comprehensive diagnostic testing, medical evaluations required for children, treatment, and a shorter validity period of three months for medical examinations. The updated technical instructions are currently undergoing the final stage of the CDC clearance process. DGMQ will oversee the implementation of the revised technical instructions and has developed a list of priority countries based on current immigration data, refugee admissions and TB burden. DGMQ plans to collaborate with DTBE, ACET and other partners to implement the revised technical instructions.

Dr. Posey announced that DGMQ, the Office of the HHS Secretary and Department of State (DOS) are now analyzing costs to determine the national burden of the Hmong resettlement. The analysis will also be used to raise awareness of the need for additional funding and support to strengthen the public health response to this issue.

State Perspective. Dr. Jennifer Flood is an ACET member and Chief of the Surveillance and Epidemiology Section of the TB Control Branch in the California Department of Health Services (CDHS). She provided a state perspective on the impact of the Hmong resettlement. Several organizations at international, federal and state levels have been involved in the coordination and leadership of the Hmong resettlement. CDHS's focus on the Hmong resettlement has been in the areas of the extent of the TB outbreak, characteristics that fueled the outbreak, the impact on California and the Hmong community, the success or failure of interventions, and next steps to prevent further cases.

CDHS took several actions to initiate a statewide investigation of the TB outbreak in Hmong refugees. Rapid case reporting of any new arrival was implemented in all 61 counties of California. Overseas and U.S. medical records were reviewed. The medical payer source was collected for each case to determine costs associated with the outbreak. Specific factors influencing the occurrence of cases in the United States were examined. Interventions to prevent further cases were identified. From June 1, 2004-December 31, 2005, ~5,500 Hmong refugees who resettled in 19 jurisdictions in California resulted in 28 active TB cases and a case rate of >500/100,000 compared to a state case rate of >8/100,000.

Of the 28 active TB cases, ~60% presented for health assessments, >33% presented for Class B examinations, 11 were culture positive, 10 were <15 years of age, none were co-infected with HIV and all had pulmonary disease. Of the 11 culture-positive cases, five had MDR-TB and four of the five MDR-TB cases had a history of TB treatment prior to U.S. arrival. A strong public health response and infrastructure contributed to the rapid diagnosis of the MDR-TB cases after U.S. arrival, but CDHS acknowledges that several areas need to be strengthened.

In one case, a male Hmong refugee 41 years of age was cleared for expedited travel after completing four weeks of TB treatment overseas and obtaining smear-negative results. The patient was diagnosed with cavitary disease and MDR-TB on day 1 in the United States based on a chest x-ray, smear-positive sputum and culture specimen. The patient died ~2.5 weeks after U.S. arrival. The public health weaknesses in this case included an inadequate TB regimen, a time lag of ~1 month after the initial positive smear and initiation of treatment, no amendment to the overseas examination, no TB

Class A waiver, and unclear communications of the TB status to the panel physicians, CDC or the receiving TB program.

In another case, a male Hmong refugee 17 years of age was cleared for travel after completing six months of TB treatment overseas and obtaining three smear-negative results and no changes on the chest x-ray. The patient was diagnosed with fairly extensive cavitary disease and MDR-TB after U.S. arrival based on smear-positive sputum, chest x-ray and numerous AFB smears. The public health weaknesses in this case included the development of MDR-TB while on TB treatment, the failure to implement close and rigorous monitoring of clinical activities, a problematic treatment course, and the uncertain quality of DOT in light of the drug regimen.

Despite these gaps, California experienced a marked reduction in the TB case rate in Hmong refugees from 25/100,000 to 3/100,000 after the final TB screening algorithm was implemented. Children $\geq$6 months of age are now screened, cultures are now required for case detection and all cases are now identified with a Class B notification. However, CDHS realizes the critical need to continue to strengthen the public health response to TB and MDR-TB in Hmong refugees even with the final TB screening algorithm.

The turnaround time of ~4 months to obtain TB results from laboratories must be shortened. The quality of case management, DOT, clinical monitoring and achievement of a cure for TB must be assured. Resources must be applied to evaluate the progress of TB programs over time. Real-time, onsite and ongoing access to expertise must be available to treat and monitor TB and MDR-TB cases. Emphasis must be placed on isolating cases in the Hmong refugee camp to prevent U.S. entry. International, federal and state partners must collaborate to coordinate resources.

Of >$2 million that has been spent in direct costs to date for medical services to treat California's 28 TB cases in Hmong refugees, >50% was allocated by the federal government and >68% was specifically targeted to MDR-TB cases. Of 860 refugees who remain in Thailand and await resettlement, 26 will require 18-24 months of TB treatment. After the resettlement is completed, CDHS estimates that ~105 refugees will develop active TB if no LTBI treatment is provided.

In terms of next steps, important lessons learned from the Hmong resettlement should be evaluated and applied before the next large-scale USRP is opened with ~150,000 Burmese refugees. Additional resources will need to be allocated to develop solid interventions, strengthen case detection methods and incorporate more rigorous measures into TB programs. Dr. Flood asked ACET to consider CDC's health

protection and health diplomacy goals in considering next steps to prevent, diagnose and treat TB cases in refugees who resettle to the United States.

ACET commended CDC for coordinating international, federal and state agencies in a comprehensive public health response to TB and MDR-TB cases in Hmong refugees. Several members noted that while CDC's efforts should serve as a model for other interagency interactions, more federal support and resources should be given to California and other heavily impacted states.

ACET suggested that in addition to developing the interagency cost analysis of the Hmong resettlement, CDC should also attempt to leverage more funding and support by creating a graph to illustrate cost savings in preventing MDR-TB in refugees. ACET pointed out that the ongoing Hmong resettlement and the upcoming Burmese resettlement reinforce its critical role in maintaining TB as a national issue with high public health impact. ACET advised DTBE to prioritize TB and MDR-TB cases in refugees during the process of addressing recommendations by the ACET Foreign-Born Workgroup.

Dr. Kawamura tabled further discussion on this issue until the following day due to time constraints. She asked ACET to consider formal recommendations that should be made to CDC in terms of developing policies for refugees with a high incidence of TB drug resistance who enter the United States in the future.

Update on TB Prevention and Control in Correctional Facilities

CDC's Updated Guidelines. Dr. Philip LoBue of DTBE reported that several factors played a role in CDC reaching consensus on the need to revisit TB in correctional facilities. The last guidelines were published in 1996, but TB is still a significant health problem in correctional facilities. The literature documents the continued failure of correctional facilities to follow solid TB prevention and control practices. Strong interest has been expressed in systematically applying lessons learned over the past ten years and using evidence-based guidance to the extent possible.

The most significant concerns in TB prevention and control in correctional facilities include the failure to screen symptoms; delays in conducting TST and chest x-rays; inadequate HIV counseling, testing and referral for inmates with LTBI; lack of screening for HIV-infected inmates with positive chest x-ray results; non-compliance with isolation procedures; inadequate use and monitoring of airborne infection isolation rooms (AIIRs); delayed contact investigations; minimal case management and evaluation; and

weak collaboration with health departments that will receive released inmates with TB or LTBI.

Several actions have been taken since 2004 to update the guidelines. An ad hoc workgroup of correctional medicine and TB experts was formed and divided into teams to draft, review, provide comments and revise individual sections of the guidelines. The revised guidelines were distributed to four external reviewers and redrafted based on this feedback. The CDC clearance process was initiated and the guidelines were distributed to ACET for review and comment.

CDC expects to submit the final guidelines to the *MMWR* in March 2006, but three issues must be resolved before the clearance process is completed: (1) the appropriate time to recommend exhausting air to outside versus re-circulating air with air cleaning; (2) the level of filtration needed for re-circulated air; and (3) clarification of the Occupational Safety and Health Administration (OSHA) regulations on personal respiratory protection. The updated guidelines contain an executive summary; introduction and background; and sections on screening and reporting, infection control, diagnosis and treatment, discharge planning, contact investigation, training and education, program evaluation, and collaboration and responsibilities.

Key areas of the updated guidelines are highlighted as follows. The scope of the document is expanded to include detention facilities. The role of the Bureau of Immigration and Customs Enforcement (ICE) in screening foreign-born persons is recognized. The need for facilities to conduct a risk assessment is emphasized. "Minimal" and "non-minimal" TB risks are clearly defined to assist facilities in conducting risk assessments. These criteria include the number of infectious TB cases over the past year, number of inmates with TB risk factors, number of new immigrants from parts of the world with high TB rates, and number of employees at risk for TB. New language has been added to advise facilities to conduct universal screening if local data cannot be produced to support targeted testing.

The "primary" and "secondary" purposes of screening to detect TB disease and LTBI, respectively, are outlined. Two screening algorithms are depicted to illustrate facilities with minimal and non-minimal TB risks. The infection control chapter covers AIIRs, personal respiratory protection, environmental controls, and CDC's guidelines on the prevention of *M.tb* in healthcare settings. The diagnosis and treatment chapter covers TB disease, LTBI, the most recent ATS/CDC/IDSA guidelines, QFT-Gold and a strong emphasis on case management.

The discharge planning chapter emphasizes the need for facilities to initiate the process well in advance of releasing an inmate; take a comprehensive approach that considers both medical and social aspects; coordinate with health department staff; and be mindful of ICE detention and other specific circumstances. The contact investigation chapter covers the appropriate time for initiation; methods to identify, prioritize, evaluate and treat contacts; and step-by-step instructions on procedures. The training and education chapter covers initial training for all correctional staff, required training for staff in facilities with AIIRs, enhanced training for staff in high-risk facilities, and education for inmates.

The program evaluation chapter covers the CDC framework and performance measures for quality improvement. The collaboration and responsibilities chapter covers the respective roles and responsibilities for TB control among correctional facilities and health departments; formal or informal agreements; and the application of existing legislation or policy statements to encourage or mandate collaboration if institutional barriers inhibit partnerships.

Revised TB Testing Program in NYC Jails. Dr. Farah Parvez of DTBE described the modified TB testing program that is being explored for NYC jails. Rikers Island is located in NYC and is one of the largest jails in the country with >400 acres of land, ten different facilities, and two additional borough houses of detention in the Bronx and Manhattan. All NYC jail facilities, except the Bronx House of Detention, are operated by Prison Health Services, a national health care vendor. In 2005, 102,772 persons were admitted to NYC jails with an average daily population of 13,576 persons, a median length of stay of seven days, and an average age among inmates of 33 years. Of the 2005 NYC jail population, 57.6% were AA and 33.7% were Hispanic.

The current TB program for NYC jails includes an intake history and physical examination within 24 hours of admission for all inmates, including a TB symptom screen and tuberculin skin test (TST) for all new inmates; a work-up in the Communicable Diseases Unit for inmates with signs or symptoms of illness; chest x-rays for inmates with symptoms, reactive TST or HIV; treatment for LTBI and active TB; and discharge planning for inmates with active TB. Despite this comprehensive process, the NYC jail system decided to evaluate its TB program by reviewing surveillance data and assessing process and outcomes from May 2003-April 2004. All NYC jail intake facilities were included in the evaluation with the exception of the Bronx facility. Key findings of the assessment are as follows.

Of 72,805 newly-incarcerated inmates during the review period, 85% were male, 10,719 reported a history of reactive TST, 770 refused the TST, 424 reported a recent negative

TST result, and 19 were discharged prior to the TST. Of 60,873 inmates who received a TST at intake, 13,609 were released prior to the TST being read, 47,264 had TSTs read in 48-72 hours and 2,697 had reactive TSTs. A reevaluation showed that 554 (21%) had a prior history of reactive TST, thus 2,143 TSTs were actually reactive. Of the 2,143 inmates with reactive TSTs, 1,201 were discharged prior to further assessment, 942 were evaluated and offered chemotherapy, and 842 refused chemotherapy.

The prevalence of reactive TSTs was 4.5% among new admissions tested in NYC jails; 22% of inmates were released before TSTs could be read; >50% of inmates with reactive TSTs were discharged before the clinical evaluation was completed; and 89% of inmates who were eligible for chemotherapy refused. The NYC jail system reached three major conclusions based on the one-year evaluation. The current TB program should be revised to more effectively evaluate and manage LTBI. Case management should be provided to inmates with LTBI to improve acceptance and completion of treatment. Existing TB case finding efforts should be strengthened.

The NYC jail system proposed to begin exploring ways to revise its current TB policy in January 2006 and received approval from the NYC Board of Corrections to develop the new program for six months. The current intake history and physical examination will be continued for all new inmates. Universal TST will be changed to targeted TST to direct resources to inmates who are most likely to progress to active TB if exposed and infected. Chest x-rays will be administered to all inmates with HIV infection and those with reactive TST. All new detainees will be cross-matched against the NYCDHMH TB registry to promptly identify persons with known TB and LTBI and provide guidance to clinical providers. The NYC jail system will propose an amendment to the NYC health code to include inmates with LTBI in the TB registry. This strategy will assist in overcoming legislative barriers to sharing data and obtaining informed consent from inmates with LTBI.

NYCDHMC will conduct case management for all inmates with LTBI and TB during incarceration and provide follow-up after the inmate is released to the community to ensure completion of treatment. Overall, the proposed TB policy for NYC jails was designed to better meet the ATS/CDC/IDSA guidelines for targeted TST. Criteria that have been established to conduct TST at intake include HIV infection, diabetes, foreign-born, homelessness, drug or alcohol use, asthma or other chronic respiratory conditions, and cancer or other immunosuppressive conditions. However, these criteria will not supercede clinical judgment.

The NYC Board of Corrections was concerned that the shift from universal to targeted TST may result in missing cases. As a result, reviews were conducted of active TB cases in NYC jails from 2004-2005, U.S. and non-U.S.-born TB cases in NYC from 1980-2004, and social characteristics of TB cases in NYC in 2004. The analysis showed that all active TB cases would have been identified with the proposed criteria for targeted TST. The overarching outcomes of the proposed policy for TB testing in NYC jails are to reduce redundant testing for recidivists, identify known cases with the TB registry cross-match, promptly identify and manage TB cases, refer inmates with LTBI and TB to primary care providers, prevent TB cases by providing case-management for LTBI and improve completion of treatment.

The NYC jail system will monitor both intended and unintended consequences of any revised policy; review data from other correctional facilities to identify best practices; consider the cost effectiveness of mini-chest films, interferon gamma release assays and other new technologies for TB screening; and apply NYC jail and local epidemiological data to refine the TB program. Written reports will be submitted to the NYC Board of Corrections on a monthly basis describing the number of inmates who were and were not screened under the new policy, screening outcomes of both groups, and any active TB cases that were missed by not conducting universal TB testing at intake. Dr. Parvez welcomed input from ACET as the NYC jail system develops and implements the new policy.

TB Screening in Jails. Dr. Michael Puisis, the ACET liaison to the National Commission on Correctional Health Care, reported that >2 million persons are currently incarcerated with federal and state prisons accounting for >1 million inmates. Of 713,990 persons in local jails, NYC accounts for 2% of the national jail population. The length of jail stays is short with 23% of persons remaining <14 days and >10 million persons being discharged each year. The most significant risks for TB in jails include foreign-born persons, racial minorities, substance or alcohol abuse or dependence, homelessness and HIV.

The rationale for TB screening is different for prisons than jails due to the length of stay. TB screening in prisons is for the detection of both active TB disease and LTBI as well as the provision of prophylactic therapy, while TB screening in jails is for the detection of active TB disease only. TB screening and other aspects of health care are much lower priorities to jails than custody issues and are also not as important to inmates compared to court hearings and visits from family members and lawyers. As a result, a one-stop screening approach should be applied with the cooperation of the facility.

A study was published in 1996 comparing 43 Class 3 TB cases detected by chest x-rays and 26 TB cases detected by TST. A 65% increase was seen in the detection of cases with chest x-rays compared to TST. The average number of days to isolation were lower with chest x-rays, while follow-up visits were dramatically higher with TST. Of 86 Class 3 TB cases, 67 were diagnosed by radiograph only and 35 cases were new. Based on symptoms, history and TST or chest x-ray, the case rate was 42/100,000 with TST and 68/100,000 with chest x-ray.

CDC's current recommendations for short-term high-risk facilities are a screen for TB symptoms, a chest x-ray if possible, TST if an x-ray is not possible, and an x-ray of all HIV-positive persons. However, CDC's official statistics reflect under-reporting of TB cases in correctional facilities because suspicious cases are not included in the data and actual cases are reported by the local hospital that isolates the inmate rather than the jail. This issue may be addressed if correctional facilities that perform x-ray screening collaborate to report aggregated data to CDC in a different manner.

The extremely high risk and other special issues with NYC must also be considered because the city has 7% of TB cases nationwide and is the only city treated as a state for surveillance purposes. Of NYC's TB cases, 7% involve substance abusers, 8% involve excess alcohol use and 68% are foreign-born. NYC has the largest number of reported TB cases compared to any city in the United States.

Dr. Puisis conveyed that the correctional community supports the shift from universal to targeted screening in general, but concerns have been raised about unintended consequences. Most notably, policymakers may interpret the change as an opportunity to eliminate TB programs. The infrastructure of TB programs may be weakened. The shift to targeted screening may not be based on accurate TB statistics at the local level.

Dr. Kawamura announced that she received a letter dated February 15, 2006 from Dr. Thomas Frieden, the NYCDHMH Commissioner of Health. Dr. Frieden asked ACET to recommend additional language for CDC's revised guidelines on TB control in correctional facilities that will allow these settings to use data to make evidence-based decisions regarding TB testing rather than follow a time-based testing mandate. Based on Dr. LoBue's presentation, Dr. Kawamura confirmed that CDC included this language in the revised guidelines. The letter was distributed to ACET for review.

ACET was extremely pleased that the NYC jail system is collecting TB data to support evidence-based policy. However, extreme caution must be taken in implementing the proposed TB testing policy due to uncertainties, subjectivity and other unknown issues in the jail setting. Although TST is imperfect as a surveillance tool, the shift from

universal to targeted screening must be carefully considered. Several members made suggestions for the NYC jail system to consider while implementing its revised TB testing policy.

- Develop collaborative relationships with HRSA-funded programs in NYC, such as homeless shelters and health centers.
- Evaluate the effectiveness and efficacy of chest x-ray screening.
- Carefully reconsider providing case management to inmates with LTBI. Offer this service only to HIV-positive and TST-positive inmates who demonstrate an exceptional risk of developing TB.
- Explore options to provide universal chest x-ray screening in NYC jails. For example, a radiology provider could install the equipment at Rikers Island and incorporate this cost into the per x-ray fee.

Update on a Previous ACET Recommendation

Dr. Kawamura announced that she sent a letter dated July 15, 2005 to Dr. Lisa Rotz, the Acting Director of CDC's Bioterrorism Preparedness and Response Program. The purpose of the letter was to inform Dr. Rotz of a recommendation ACET unanimously approved during its June 2005 meeting to reclassify MDR-TB from a Category C to a Category B bioterrorism agent.

Dr. Rotz responded to ACET in a letter dated December 19, 2005 and explained that CDC has not made a decision on ACET's recommendation at this time. Efforts are underway to develop a formal evaluation process to categorize diseases. CDC welcomes ACET's involvement in this activity when TB is assessed. The letter was distributed to ACET for review. **Dr. Flood will serve as the ACET point of contact with Dr. Rotz during the evaluation process.** Dr. Kawamura will solicit additional volunteers from ACET if the need arises.

Binational Border TB Case Management

Dr. Gary Simpson, of the New Mexico Department of Health, reported that TB case rates along the U.S.-Mexico border are 5.2/100,000 on the U.S. side and 15.1/100,000 on the Mexico side based on country averages and 6.0/100,000 on the U.S. side and 28.2/100,000 on the Mexico side based on border state averages. TB case management along the border is extremely challenging, unique and complex due to a

huge population, various legal and public health jurisdictions, and uncertainties about specific roles and responsibilities. The following case summary is an example of these issues.

A Mexican National 26 years of age was arrested, incarcerated in the Luna County Detention Center and diagnosed with MDR-TB six weeks later. The patient was transferred to the Dona Ana County Detention Center, placed in isolation, and showed a remarkable and rapid clinical response to TB treatment. The patient demonstrated signs of an altered mental status during the third month of therapy and underwent three psychiatric evaluations. The diagnoses included an adverse reaction to medications and paranoid schizophrenia.

The patient refused all medications and was eventually deported and lost to follow-up despite extraordinary efforts that were made to ensure continuity of TB care across the border. Contact with the patient was reestablished during a transnational contact investigation in Chihuahua. A total of 19 organizations at federal, state and local levels on both the U.S. and Mexico sides of the border were actively involved in a collaborative effort to provide TB care to the patient and attempt to prevent the development of TB in the patient's family members.

The case provided an opportunity for the collaborating public health and correctional agencies to identify certain characteristics that are common to binational TB patients. These persons are typically born outside of the United States, have no legal status, face outstanding criminal charges, and are infected with drug-resistant strains. Binational TB patients may be marginalized, stigmatized and homeless with poor access to medical care; significant, undiagnosed or untreated co-morbid medical or psychiatric conditions; and major cultural and language barriers. Binational TB patients often live in environments that foster mistrust, fear and secrecy.

The collaborators also identified key challenges that contributed to the failure in successfully treating and managing the case. Consensus has not been reached along the border on treatment guidelines for TB and MDR-TB. The process to manage information is extremely weak because an electronic medical record system that is web-based, secure, confidential, authenticated, credentialed and encrypted has not been developed for use along the border. Adequate funding has not been allocated to address the excess morbidity or case burden of binational TB case management. Statutory authorities in regional, interstate and international public health jurisdictions are uncertain and complex. Secure inpatient isolation and treatment facilities are minimal.

The collaborators noted that four key questions related to binational public health statutory authorities must first be answered before steps can be taken to resolve the current challenges. First, can the jurisdiction of a state district court be asserted over patients in custody to ICE, U.S. Marshals or another federal entity? Second, can CDC or another federal authority compel isolation of persons with a threatening communicable disease (TCD)? Third, can Mexico or Chihuahua state refuse entry of a patient with MDR-TB or another TCD? Fourth, does federal or state statute grant authority to public health officials in Mexico to isolate patients with a TCD based on a court order?

All TB programs should provide a full range of services or functions, including diagnostic services, case management, medications, therapeutic monitoring, contact investigations, screening of high-risk groups, education and medical consultation. However, these services are not provided to the border region in a clear, integrated and complimentary manner.

Legal Authorities for Communicable Disease Control

Dr. Ram Koppaka of DGMQ described existing legal authorities that can be applied to control communicable diseases. "Isolation" is the separation and restricted movement of ill persons with contagious diseases, while "quarantine" is the separation and restricted movement of well persons presumed to have been exposed to a communicable disease. These management strategies may be voluntary or mandatory and applied to hospitals, communities, homes, residential facilities or individuals. "Legal authority" is the right to take a particular action based on a statute, regulation or other legal precedent, but does not necessarily equal policy.

"Containment measures" are actions taken by society for the common good and predicated on aiding individuals infected with or exposed to infectious agents while protecting other persons from the dangers of inadvertent exposure. Containment measures must balance the needs of many persons while protecting the rights of the law. "U.S. public health" protects society from health threats and primarily vests responsibility in state and local governments to exercise this authority. However, many states are attempting to refine this authority.

For example, the body of law for TB control is evolving by requiring mandatory DOT and subjecting TB patients to state legal authority until cured. Statutes have been developed for states to respond to bioterrorism and public health emergencies. Public health guidance has been issued for communities to respond to severe acute

respiratory syndrome (SARS). These legal authorities allow federal agencies to provide guidance, offer consultation and serve as a facilitator to states rather than develop state laws or policies.

The federal quarantine statute (FQS) is an exception to state authority and authorizes the federal government to apprehend, detain and conditionally release persons to prevent the spread of communicable diseases. FQS criteria include diseases specified by a Presidential Executive Order, foreign arrival and interstate travel. Based on the 2005 FQS criteria, persons can be quarantined for infectious TB and eight other diseases. The FQS is implemented under both interstate and foreign quarantine regulations, but has not been used by the federal government for any disease since 1962.

HHS policy has traditionally given states responsibility for isolation and quarantine within a state and authority to the federal government at U.S. points of entry. However, this role may not be clearly defined for airports, seaports, land crossings and other concurrent jurisdictions. As a result, policy, resources and mutual agreements typically dictate the lead entity.

The Immigration and Nationality Act defines specific grounds for the inadmissibility of aliens to the United States. CDC, DOS and the Department of Homeland Security jointly implement the health component of the law. U.S. entry can be barred based on HIV infection, physical or mental disorders, substance abuse, or other diseases and disorders of public health significance and scope prescribed by statute or HHS regulations. The law also specifies compliance to the vaccine requirement, exceptions and the process for waivers.

DGMQ's traditional regulatory role has been to prevent the importation of animals or cargo, respond to the arrival of ill passengers, and implement health-related alien inadmissibility regulations. DGMQ has taken additional regulatory actions since 2003 related to SARS, influenza, the importation of animals from certain countries, and passenger manifests from airlines and cruise ships. Dr. Koppaka announced that CDC published proposed rule-making in the *Federal Register* on communicable disease control for interstate and foreign quarantine statutes. ACET and any other members of the public can view the proposed regulations on the CDC web site and provide input before the public comment period closes on March 1, 2006.

Burden of Binational Cases

Dr. Zachary Taylor of DTBE reported that a binational case must meet the U.S. or Mexico TB case definition in addition to two other conditions. Communication or collaboration must be established among healthcare providers on opposite sides of the border. The case patient must be a contact or source case of contacts on opposite sides of the border. Based on these criteria, a binational TB case can be categorized into one of four groups: an exchange of diagnostic, clinical or treatment information; a contact or source case; an exchange of diagnostic, clinical or treatment information in addition to a contact or source cases; or laboratory or radiologic testing.

Arizona, New Mexico, San Diego and Texas collect data on binational TB cases, but CDC does not gather this information. Binational TB case data collected from 2001-2005 are summarized as follows. In Texas, the number of binational TB cases ranged from 435-329, the number of binational MDR-TB cases ranged from 16-38, and the number of binational TB cases not counted in CDC's national data system ranged from 428-293. Texas reported 1,683 cases in 2004, but binational TB cases are not reflected in national case counts. In New Mexico, 30% of TB cases were among Mexico-born persons, 21 binational TB cases were reported, an estimated 19 binational TB cases were not reported, and two binational cases were MDR-TB.

In Arizona, 43% of TB cases were among Mexico-born persons, 66 binational TB cases were reported, none of the binational cases were MDR-TB, and the rate of completing therapy was extremely low at 35%-56%. In San Diego, TB cases receive care in San Diego, but live in or return to Tijuana during care. Lay HCWs provide DOT, fax DOT records to San Diego every two weeks, and hold quarterly conferences with San Diego. Of 30 patients who were on binational DOT in 2005 in San Diego, five are still on treatment, 14 completed treatment, four moved to the United States, three transferred to the Mexico program and four had other outcomes.

Overall, binational TB and MDR-TB cases are a substantial burden for the border region and drain state and local resources. Dr. Taylor emphasized that CDC needs expert guidance in defining a comprehensive approach because the completion of treatment is extremely poor among binational TB cases.

Update on the Binational TB Referral and Case Management Project

Dr. Castro described preliminary evaluation results of the binational card project. The goals of the initiative were to facilitate continuity of care and ensure completion of therapy; reduce TB incidence and prevent drug resistance; coordinate referral of patients between health systems; and provide a model for other diseases. The pilot

sites for the binational card project included three states, ICE detention centers in four states, and six U.S.-Mexico border jurisdictions in both the United States and Mexico. The binational card project was jointly evaluated by the United States and Mexico in two phases from March 2003-December 2004.

Data sources for the evaluation included databases, surveillance systems, referral records, site visits, focus groups with health center staff and patients, and interviews with TB program and referral agency staff, key stakeholders and patients. The preliminary evaluation results are summarized as follows. Of 793 TB patients who received a binational card in Mexico, 17 moved to the United States. Of 488 TB patients who received a binational card in the United States, 147 moved to Mexico. Outcomes of the pilot project were used to update the U.S. National TB Surveillance System.

The perspective of HCWs was that the project benefited patients, the sites served as a conduit for successful referrals, and providers were able to contact patients with a binational TB card. The project allowed HCWs to learn about the Mexico healthcare system, outreach to Hispanic TB patients, reinforce connections with local providers, reiterate the importance of case reporting, re-deploy resources and implement a domestic referral tool. However, HCWs also pointed out that the project resulted in an increased workload due to the time required to complete additional forms, broad eligibility criteria, more responsibilities with no additional staff or resources, difficulties in tracking referred patients, and a detraction from routine activities.

The perspective of patients was that the project facilitated access to medications, offered support and concern for their well-being, decreased the number of questions to answer at the destination, eliminated the need to resume treatment or be retested, justified the need to carrying medications when crossing the border, and allowed the provider at the destination to obtain treatment records from the place of origin.

TB patients accepted the card and only one refusal was reported. TB patients demonstrated a general understanding of the overall purpose, limitations and uses of the card and asked very few questions when the card was issued. However, some patients mistakenly believed that the toll-free telephone number could be used to directly reach a provider in the country of origin and the sole purpose of the card was to carry medications across the border.

In terms of education, TB patients were able to summarize the key points of the project, but some persons believed the amount of information provided was overwhelming and requested additional educational materials. CDC identified several actions that can be

taken to provide continuous education to TB patients, such as periodically reinforcing and repeating key messages, providing translators at some sites, and disseminating low-literacy brochures, videos, flip charts and other materials.

With respect to coordination with immigration authorities, the project was embraced by participating facilities and fostered implementation of new standard operating procedures and protocols at all ICE facilities. The binational TB card was seen as a mechanism to facilitate compliance with arranging for follow-up of persons with TB disease. The coordination with ICE is a key achievement of the project. In terms of political will, high-level U.S. and Mexico officials made commitments to the project and recognized TB as a problem that extends into the interior of both countries. The project led to effective collaboration across the border.

Stakeholders met in April 2005 to report on progress and recommended that the pilot project be continued and expanded to new interior sites with additional resources. Suggestions were also made to use the evaluation results to refine the program with site-specific eligibility criteria and improved data systems within and across the two countries. Weekly conference calls have been held since the progress meeting to discuss strategies to make these improvements. The referral forms were redesigned and the revised system was implemented in the summer of 2005. The pilot sites are continuing the project, but no new CDC dollars have been allocated. Several agencies and organizations in the United States and Mexico are being approached to provide additional resources in an effort to expand the project to other sites in both countries.

Improvements in TB Control on the Border

Ms. Mary Lou Valdez is the Deputy Director for Policy of the HHS Office of Global Health Affairs and the HHS Secretary's delegate to the U.S.-Mexico Border Health Commission (BHC). She described the critical role of the BHC in improving TB control on the border. From 1994-2000, the BHC was established, funding was allocated and a binational agreement was developed. The BHC currently operates with annual funding of ~$3.5 from U.S. appropriations and ~$1 million from Mexico.

The BHC is extremely important to both countries and represents the first time the United States and Mexico have jointly supported health issues through federal legislation and a formal binational agreement. The BHC provides a binational perspective of public health issues, convenes stakeholders in both countries, and allows the United States to focus on public health challenges that are unique to the border.

Ms. Valdez asked ACET to consider three key questions during its further discussions on improving TB control along the border. First, have the United States and Mexico actually agreed on a case definition for "binational cases?" Second, what data elements can be developed to improve reporting of TB data across the two countries? Third, what opportunities are available for the BHC to use ACET's expertise to improve TB control along the border? For example, ACET could assist the BHC in convening TB experts to develop a case definition for "binational cases," improve case management, determine TB trends and key challenges, and identify the most heavily impacted populations and geographical areas along the border.

ACET made several suggestions for the agencies to consider to improve TB control and case management along the U.S-Mexico border.

ICE

- Solicit guidance and input from ACET during the decision-making process of detaining persons with TB.

CDC

- Clearly distinguish between "active" and "infectious" TB when applying the FQS. For example, infectious TB patients should be quarantined, but active TB patients should be isolated until therapy is completed.
- Quantify and highlight the significance of drug resistance among binational TB cases to better determine the burden.
- Expand binational TB efforts beyond Mexico to include China, India and the Philippines because cases from these countries frequently depart from and return to busy industrial areas in California and other parts of the United States.

BHC

- Take concrete actions to address the 7.8% of binational cases that are MDR-TB because the extremely high rate will devastate programmatic resources and infrastructures if the MDR-TB cases are not managed along the border.
- Serve as a platform to confirm that the United States and Mexico have reached agreement on a case definition for "binational cases." Harmonize the case definition throughout Mexico to ensure that the two countries collect comparable TB data.
- Prioritize the implementation of TB drug-resistant surveillance measures in Mexico.

- Brief the HHS Secretary on the binational TB presentations that were made during the ACET meeting.
- Convene experts to develop a cohesive process to address TB issues along the border and seek assistance from ACET in identifying these technical resources.

Ms. Loaiza made a motion to provide the BHC with CDC's data on the burden of binational cases and inform the BHC that the U.S.-Mexico binational TB referral and case management project will be discontinued in the near future if additional resources are not leveraged. The motion was seconded by Dr. Flood and **unanimously approved** by ACET.

With no further discussion or business brought before ACET, Dr. Kawamura recessed the meeting at 5:23 p.m. on February 15, 2006.

Current ACET Business

Dr. Fleenor acted as the ACET Chair on February 16, 2006 in Dr. Kawamura's absence. He reconvened the meeting at 8:36 a.m. and entertained a motion to accept the previous meeting minutes. The motion was properly moved and seconded by Dr. Fluck and Ms. Gray, respectively. The November 16-17, 2005 ACET Meeting Minutes were **unanimously approved** with no changes or further discussion.

The action items and agenda items raised over the course of the meeting are outlined below.

Action Items

- Dr. Valdiserri will provide ACET with CDC's criteria to categorize public health activities as "low" or "high" impact.
- Dr. Valdiserri will circulate updates to ACET on the restructure of CDC's advisory committees as information is released.

Agenda Items

- Update on TB and MDR-TB cases in Hmong refugees, including outcomes for MDR-TB cases receiving treatment in the Thailand refugee camp; rapid conversion of sputum cultures; additional acquired drug resistance to injectable agents or fluoroquinolones; and the availability of drug susceptibility studies or difficulties in obtaining this research.
- Update on the revised TB testing policy in NYC jails.

- Progress report on implementation of TB drug-resistant surveillance measures in Mexico.
- Update on new TB research opportunities with a diverse group of speakers: Dr. Peter Small of the Gates Foundation for the resource perspective; Treatment Action Group for the community perspective; and the National Coalition for the Elimination of Tuberculosis for the advocacy perspective.
- Presentation by a community representative on a domestic model in which the community and federal government successfully collaborated in TB elimination activities.
- Update on TB informatics.
- Report by the International Union Against Tuberculosis and Lung Disease.
- Status report on the restructure or reorganization of CDC's advisory committees.
- Update on the Global Fund and report on the 2006-2015 global plan that was developed by Stop TB workgroups.
- Update on implementation of the nucleic acid amplification testing guidelines for TB.
- Update by DGMQ on the draft revised technical instructions for overseas screening.

Dr. Valdiserri reported on an action item that was raised during the previous meeting. Dr. Gerberding represents CDC on the "American Health Information Community." HHS established this group to develop strategies to share electronic health records.

ACET formed a workgroup with representation by Drs. Flood, Kawamura and Seaworth to review and make comments on the draft revised technical instructions for overseas screening. DGMQ will revise the document based on comments recently submitted by DTBE and forward the new version to DTBE for distribution to the ACET workgroup within the next few days.

New ACET Business

Dr. Fleenor reminded ACET of Dr. Kawamura's request on the previous day for the members to consider formal recommendations that should be made to CDC on developing policies for refugees with a high incidence of TB drug resistance who enter the United States. Dr. Flood asked ACET to consider the following issues before crafting the formal language.

The most urgent and critical actions needed at this time are as follows. DTBE should evaluate case management practices of the current TB cases in Hmong refugees to ensure resistance is not further amplified and MDR-TB cases are cured. DTBE should take a leadership role with DGMQ to assess ongoing TB program activities, evaluate standard reporting measures, and publish these outcomes in a formal recording system that can be used in the future with Burmese refugees. DTBE should allocate sufficient resources to conduct the Hmong evaluation because this activity will inform efforts to prevent drug resistance in the upcoming and larger resettlement of Burmese refugees.

Dr. Flood further suggested that CDC deploy a group to Thailand with both DTBE and DGMQ staff to conduct the onsite evaluation in a timely manner. CDC's immediate attention to this issue is crucial because the substantial impact of TB in Hmong refugees will continue at federal, state, local and community levels throughout the United States. California and other states are extremely concerned that CDC has not used the Hmong resettlement as an opportunity to evaluate case management practices for refugees and immigrants, particularly since the Burmese resettlement is scheduled to begin in March 2006. Dr. Flood asked ACET to submit a letter to DTBE to formally request the onsite evaluation in Thailand with a March 2006 deadline.

Other ACET members were divided on Dr. Flood's comments and recommendations that should be made to CDC. On the one hand, CDC should perform an onsite evaluation in Thailand because data collected from the Hmong experience on laboratory support, TB case diagnosis and drug susceptibility testing will inform the upcoming Burmese resettlement. At national, state and local levels, the United States could experience a resurgence of TB and MDR-TB and also face tremendous resource implications if lessons learned from the Hmong experience are not formally assessed, recorded and applied to the upcoming Burmese resettlement.

On the other hand, ACET members were aware of CDC's presentations on the previous day demonstrating that federal agencies are undergoing tremendous budget cuts and are now being forced to completely eliminate some programs. CDC should explore the possibility of obtaining data on TB activities in Thailand without an onsite evaluation. ACET could form a workgroup to assist DTBE in organizing and evaluating the information. CDC should also conduct a study to determine the actual costs associated with adequately and fully evaluating TB activities in Thailand and gathering solid data. ACET's request is more likely to be implemented if an exact dollar amount is provided to CDC decision-makers.

CDC was also divided on this issue given the need to balance a solid evaluation and resource constraints. On the one hand, CDC recognized that a state-of-the art

evaluation and a comprehensive programmatic review should be performed onsite in Thailand to properly and fully respond to ACET's request. On the other hand, CDC pointed out that a practical and realistic strategy must be developed that accounts for resource constraints and logistical issues. Most notably, CDC has cut its overall travel budget and now requires programs to obtain HHS approval for international travel 45 days in advance with the exception of emergencies. The Thailand evaluation could not be classified as an "emergency."

CDC described several cost-effective options that are available to respond to ACET's request. CDC deployed personnel to the Hmong and Burmese refugee camps and could convene a conference call with an ACET workgroup to report on the most recent site visits and determine next steps. CDC can rapidly obtain data on TB case management practices in Thailand from personnel in the field within the next week without the need for international travel.

CDC is attempting to obtain visibility and support of the Hmong resettlement at a high federal level. CDC recently briefed the White House Science and Health Policy Advisor on the public health impact to the United States of the Hmong resettlement. CDC analyzed costs to the United States to date in treating MDR-TB cases in Hmong refugees and included these data in the briefing materials. The cost analysis will be distributed to ACET. CDC will most likely be asked to repeat the briefing to other high-level officials in Washington in the near future.

Dr. Flood made a motion for DTBE to provide ACET with evaluation reports of ongoing case management activities for Hmong refugees in Thailand by March 31, 2006. These updates should include status reports from staff in the field and descriptions of CDC's short- and long-term TB activities with refugees depending on resources. The motion was seconded by Dr. Fluck and **unanimously approved** by ACET. DTBE and ACET will determine the most appropriate and effective methods to communicate the evaluation reports.

Update on TB Disparities Among AAs in the Southeast

Dr. Nickolas DeLuca of DTBE covered the following areas in his report. CDC is collaborating with the Tuberculosis Epidemiologic Studies Consortium (TBESC) and funding a project entitled "Task 11 Addressing TB Among AAs in the Southeast: Identifying and Overcoming Barriers to Treatment Adherence for LTBI and TB Disease." Dr. Rachel Royce, RTI International, the North Carolina TBESC Principal Investigator, and Dr. DeLuca are the Task 11 Co-Principal Investigators. RTI organized a multi-

disciplinary team of social scientists and state TB control partners to advise the project. The project is targeted to eight southeastern (SE) states: Alabama, Arkansas, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee. CDC surveillance data show that these states have consistently reported annual TB case rates in AAs above the national average over the past ten years.

Several efforts led to the development of the project. CDC published an article in the *MMWR* in July 2004 focusing on TB racial disparities in seven SE (SE-7) states from 1991-2002. CDC awarded supplemental funding in 2002 to Chicago and two SE-7 states. The grantees used these dollars to conduct demonstration projects to identify innovative strategies to improve TB testing, diagnosis and treatment in high-risk AA communities. CDC developed and disseminated fact sheets on this issue. ACET held a consultation in May 2003 with a diverse group of stakeholders to focus on and leverage support for the elimination of TB disparities among AAs in the Southeast.

The six target audiences of the TBESC Task II project include AA TB patients, AA LTBI, AA at-risk community members, providers serving AA populations at risk for TB, local TB control program staff, and community leaders. Partnerships for the project have been established with the original SE-7 states and North Carolina. The overarching goals of the project are to identify and understand sociocultural, racial and health system barriers for AAs with or at risk for TB; investigate TB knowledge, attitudes, beliefs and practices among patients and providers; and develop interventions to address barriers and eliminate disparities in TB case rates among AAs.

The project will be conducted over three years to perform exploratory descriptive research in phase 1 and to develop and evaluate intervention(s) based on Phase 1 findings in phase 2. Factors that influence behaviors related to TB diagnosis and treatment will be assessed at several levels, including individual, interpersonal, organizational, institutional, community, societal and public policy.

At this time, the study protocol, research instruments and literature review have been completed. Criteria to select the research sites were established. Approval for the project was obtained from both federal and local Institutional Review Boards. County data of TB disparities in the Southeastern states were mapped and analyzed. Four to six rural and urban areas were identified as the initial research sites. Negotiations were completed with a diverse group of stakeholders at the research sites. A pilot study was conducted and formative research was initiated in a rural North Carolina county.

Over the next few months, RTI will continue to collect and analyze data, and will write up the research findings to complete the phase 1 formative research. They will launch

the phase 2 intervention development by creating criteria to select sites for an intervention, establishing community advisory boards, and devising and developing an intervention. A technology transfer packet with a disparity evaluation tool and intervention will be developed and disseminated. Partnerships and collaborations will be strengthened with TB programs, healthcare providers and local community leaders.

RTI along with CDC recruited a core organizing team to plan and convene a meeting in Atlanta on May 16-17, 2006 in follow up to ACET's May 2003 consultation on TB disparities in the Southeast. The organizing committee proposed several potential topics for the meeting: an update on activities since the May 2003 consultation; lessons learned from other projects; a media toolkit and other new tools for partners; increased awareness of TB disparities for inclusion in the HHS Health Disparities Report; the role of correctional facilities in decreasing TB disparities; and a formal structure for follow-up, next steps and ongoing communication.

Dr. DeLuca noted that Dr. Kawamura and former ACET members serve on the organizing committee, but CDC welcomes input from other current members on additional topics that should be considered for the May 2006 follow-up consultation. **Mr. Jones volunteered to serve on the organizing committee for the meeting.**

Demonstration Projects to Intensify the Reduction of TB rates in AA Communities

Dr. Taylor reported that CDC awarded funds to Chicago, Georgia and South Carolina to conduct three-year demonstration projects. The initiative was in response to ACET's consultation in May 2003 on TB disparities in the Southeast and CDC data that showed AAs accounted for 28% of reported TB cases by race/ethnicity. In phase 1, the grantees were required to describe the problem based on local TB epidemiology, knowledge, attitudes and beliefs among AAs in the community. Interventions were identified and evaluated in phase 2. All three grantees targeted activities to predominately AA areas with high rates of TB. Key outcomes of the demonstration projects are as follows.

South Carolina learned that a historical stigma is associated with TB and the AA community is unaware of TB. Comprehensive and accessible medical care is needed to address medical, social and other concerns of TB clients. Medical providers should reflect the community and TB services in public health departments should be tailored to males. South Carolina developed several TB interventions to address these needs.

Two AA disease intervention specialists were recruited to provide TB services and education in two health districts and an AA social worker was recruited to bridge referral gaps. A social marketing campaign was launched using radio and television announcements and billboards. TB training was developed for the community and partnerships were established with primary care health centers, the business community, FBOs and shelters.

South Carolina made several efforts to sustain the interventions after CDC funding ended in August 2005. Collaborations with the primary healthcare center and stakeholders are being maintained and a new partnership is being established with a private foundation. Funding is still provided to the health educator. TB training and education are offered to staff and the community.

Georgia learned that messages should be tailored for and disseminated to the AA community. Access to health care should be increased for AAs and the stigma associated with TB should be addressed. The cultural consciousness of healthcare providers should be increased. Georgia developed several TB interventions to address these needs.

The "Controlling and Eliminating TB in the AA Community Task Force" was established. Peer educators were hired to coach and motivate high-risk TB clients. A social marketing campaign was launched to widely disseminate TB messages through posters, local and national celebrities, newspaper, television and radio advertisements, postings on park benches, videos and pamphlets. TB training and education were provided to TB staff, community stakeholders and residents of TB shelters. Shelter kits with a blanket, cap, socks, water bottle and TB message were distributed.

Georgia made several efforts to sustain the interventions after CDC funding ended. Salaries are provided to the peer educators. Posters will continue to be displayed on park benches in zip codes with a high TB incidence. TB education and training will be provided to partners and collaborations with the community will be maintained. Support will continue to be given to the TB advisory group.

Chicago learned that the community mistrusts healthcare providers. Historical stigma and misconceptions are associated with TB in the community. TB education is needed at all levels of the community. Chicago developed several TB interventions to address these needs. Partnerships were established with public and private healthcare providers and a task force was established. A TB social marketing campaign was developed and launched. A dedicated TB warm line was created to receive non-medical TB questions from the community.

The demonstration project will continue until December 2006, but Chicago is now taking actions to sustain the interventions. The TB task force and warm line will continue to be supported. Community education will be provided to schools, health fairs, FBOs, hospitals, public health clinics and aldermen. Dr. Taylor announced that DTBE awarded a contract to formally evaluate the demonstration projects and expects to receive a report by the end of February 2006. DTBE will distribute the document to ACET for review.

Two announcements were made regarding TB disparities. Dr. William Baine, the *ex officio* member for the Agency for Healthcare Research and Quality, reported that the National Healthcare Disparities Report contains two TB indicators related to disparities in access, prevention and treatment. He suggested that ACET review the report to determine whether the current measures are appropriate or if new indicators should be proposed. ACET should provide comments to Dr. Baine on revisions to the existing TB measures or potential new indicators. Dr. Castro announced that a large multi-year study is underway at CDC focusing on TB cases and contacts. CDC will extract and analyze data from the immunogenetics components of the study over the next year.

ACET was extremely pleased about the follow-up consultation, research and other ongoing activities at CDC to address TB disparities among AAs in the Southeast. Several members made suggestions for CDC to consider while conducting these initiatives.

- Redesign the project on addressing TB among AAs in the Southeast with a stronger emphasis on the integration between TB care and attitudes and sexual health. Gather data from the study population on access to or the use of sexual health services.
- Inform grantees and research sites about the availability of a geographical mapping tool to locate all HRSA-funded programs. Emphasize to grantees that partnerships with HRSA-funded programs will be particularly beneficial to meet the needs of TB patients in rural areas and more closely focus on the interface among TB, HIV and STDs.
- Include sessions on the interface among TB, HIV and STDs during the follow-up consultation on TB disparities in the Southeast.
- Distribute the letter to the HHS Secretary that was developed by stakeholders who attended the original consultation in 2002. Invite the same participants to the upcoming meeting in May 2006 and provide updates on activities that have been conducted over the past four years.

Follow-up with Dr. Theresa Watkins-Bryant, the *ex officio* member for HRSA, about the status of the stakeholder letter.

- Attend health disparities summits that are convened by the HHS Office of Minority Health (OMH) and other groups each year. Use this event as an opportunity to present data highlighting TB disparities among AAs.

ACET was extremely concerned that no actions have been taken to date on its long-standing request to include TB in the HHS Health Disparities Report. Ms. Betty Hawks is the alternate *ex officio* member for OMH. She was aware of ACET's letter to HHS over a year ago on this issue, but the letter was forwarded to the Office of Refugee and Resettlement in the HHS Administration for Children and Families for this agency to provide a response.

Due to the long period of time that has passed since ACET submitted its letter to HHS, Ms. Hawks advised ACET to take advantage of opportunities within state and regional minority health offices. Community leaders within these offices can serve as a valuable resource to provide input and enhance CDC's ongoing project to address TB among AAs in the Southeast. Ms. Hawks also reported that several TB presentations were made during OMH's health disparities summit in January 2006.

Mr. Jones placed the following motion on the floor. ACET should use the momentum of the follow-up consultation in May 2006 to reaffirm the need to include TB in the HHS Health Disparities Report. ACET should send another letter to Dr. Garth Graham, the OMH Director and ACET's *ex officio* member, to inquire about the status of ACET's original request. The motion was seconded by Dr. Fluck and **unanimously approved**. Drs. Kawamura and Fleenor will draft and distribute the letter to ACET for review and comment before finalizing and sending the letter to Dr. Graham.

Update on the National Occupational Research Agenda (NORA)

Dr. David Weissman, of the National Institute for Occupational Safety and Health (NIOSH), covered the following areas in his report. NIOSH is a CDC institute in HHS with responsibility for conducting research and making recommendations on the prevention of work-related injury and illness. The Occupational Safety and Health Act of 1970 established both NIOSH and OSHA, but the two agencies are distinct and separate. NIOSH was formed with three strategic goals. Research is conducted to reduce work-related illnesses and injuries. Safe and healthy workplaces are promoted through interventions, recommendations and capacity building. Global workplace safety and health are enhanced through international collaborations.

NIOSH's research divisions and laboratories focus on applied research and technology; respiratory disease studies; safety research; education and information; health effects; personal protective technologies; and surveillance, hazard evaluations and field studies. NIOSH's service activities and programs include health hazard evaluation and technical assistance; fatality assessment and control evaluation; respirator certification; education and research; extramural grants; and information dissemination. NIOSH developed NORA with four overarching goals. An occupational disease research agenda was developed for the nation. Input from stakeholders is solicited to identify research priorities for the nation. Collaborations are built to address priorities. Funds are leveraged to support research in priority areas.

In phase 1 of NORA from 1996-2006, NIOSH developed research agendas based on 21 priority areas identified with input from stakeholders. In phase 2 of NORA that was recently launched, NIOSH changed the methodology to develop research agendas based on eight industrial sectors. The healthcare and social assistance sector is a major focus area that accounts for nearly 16% of non-fatal workplace injuries and 18.4% of non-fatal illnesses.

NIOSH will form sector research councils (SRCs) to assist in developing research agendas for phase 2 of NORA. The SRCs will operate under a specific mission and guiding principles. A sector-specific research strategy will be developed and maintained for the nation to address the most important problems. The impact of NORA will be maximized through partnerships to promote widespread adoption of improved workplace practices based on research results. A transparent process and stakeholder representation and participation will be emphasized.

Each SRC will have a diverse membership of employers, labor representatives, academic institutions, trade and professional associations, federal and state partners, practitioners, scientists, occupational safety and health professionals, and NIOSH staff. The SRCs will conduct several activities. Strategic goals will be developed to eliminate the worst problems in the industrial sector or sub-sector. Needs, gaps and barriers will be analyzed. Intermediate goals and outcome measures will be created. Plans will be designed to assure funds, conduct research and adopt successful strategies for prevention through partnerships.

NIOSH will convene public town hall meetings throughout the country to solicit volunteers to serve on the SRCs and gather input on NORA. Each meeting will be structured with discussions on both regional and industrial sector-specific issues, such as major problems, key partnerships, relevant research and cross-sector research. The

healthcare and social assistance sector meeting was held in Houston, Texas with broad participation. ACET, other professional organizations and members of the public who are unable to attend the town hall meetings can provide input on NORA through an electronic docket on the NIOSH web site or direct e-mail messages to Dr. Weissman.

Dr. Weissman provided additional details on NORA of particular relevance to ACET. Respiratory diseases were discussed during the healthcare sector meeting, but TB was not specifically mentioned. As a result, ACET's involvement with NORA will be extremely important in terms of making specific recommendations on TB and other infectious diseases for NIOSH to consider. NIOSH recently released a program announcement on the prevention of airborne infectious agents (AIAs) in occupational settings. The goal of the research activity will be to collect data to strengthen current understanding and knowledge of this issue. Studies proposed in both laboratory settings and actual healthcare environments will be responsive to the program announcement. The public can view the solicitation on the NIH grants web site.

Dr. Weissman announced that NIOSH is continuing to conduct several activities in response to recommendations made during CDC's workshop on respiratory protection for AIAs in December 2004. Research is underway focusing on the development of N95 filtering face pieces with better fitting characteristics. Efforts are being made to improve anthropometrics panels to be more representative of the broad range of facial types in the current U.S. workforce. Studies are being conducted to develop respirator materials with a better fit and seal. Emphasis is being placed on creating a total inward leakage standard that will require respirators to be manufactured with a rating. NIOSH hopes to apply supplemental funding for pandemic influenza to TB.

ACET pointed out that the long-standing debate on respirators between NIOSH and the infection control community has not been resolved. Healthcare facilities controlled TB by implementing CDC's infection control guidelines. This achievement was made without the need for annual fit testing of respirators. The infection control community views the annual fit testing requirement to be extremely burdensome and resource-intensive, particularly since NIOSH data have not clearly demonstrated reliable fit testing methods. Dr. Weissman agreed that inadequate data contribute to the historical debate on respirators. He hoped NIOSH's ongoing research will produce data that will fill gaps, unequivocally answer questions, and facilitate solid agreement between the infection control and occupational communities.

Report on Outstanding ACET Issues

ACET agreed during the previous meeting to update and publish technical guidance on overseas screening, treatment and case management of TB and MDR-TB among refugees and immigrants prior to U.S. entry. During a conference call after the meeting, DTBE committed to take the lead in this effort. Drs. Kawamura and Fleenor will solicit volunteers from ACET to assist DTBE in this activity and respond to other recommendations made by the ACET Foreign-Born Workgroup. Dr. Fleenor will also circulate the workgroup's recommendations to ACET for review.

Dr. Litjen Tan is the ACET liaison to the American Medical Association (AMA). He reported that DTBE is currently editing ACET's resource packet to primary care physicians, including a "Dear Colleague" letter, "frequently asked questions" list and LTBI fact sheet. DTBE will forward the revised packet to AMA for medical editing and distribute the materials to ACET for review and comment. AMA and CDC will attempt to leverage resources to package these materials, a booklet and other items into a toolkit for wide distribution to primary care physicians. AMA will also make efforts to increase awareness and dissemination of the toolkit by placing an advertisement in *JAMA* and partnering with the National Medical Association and IDSA.

Dr. Michael Iademarco of DTBE reported on an action item that was raised during the previous meeting. DTBE was asked to provide ACET with the draft International Standards for TB Care (ISTC) guidelines for review and comment. Since that time, the ISTC Steering Committee agreed to discontinue further efforts to solicit additional input before finalizing and publishing the guidelines. The committee will seek endorsement from ACET, IDSA and many other professional organizations after publishing the guidelines. DTBE will provide ACET with either a pdf file or the web site address for the guidelines.

Public Comment Period

The Acting Chair opened the floor for public comments; no attendees responded.

Closing Session

The next ACET meeting is tentatively scheduled for June 28-29, 2006 or the week of July 10, 2006. DTBE will poll the members by e-mail to confirm the next meeting date and availability.

With no further discussion or business brought before ACET, Dr. Fleenor adjourned the meeting at 11:29 a.m. on February 16, 2006.

I hereby certify that to the best of my knowledge, the foregoing Minutes of the proceedings are accurate and complete.

_____ _____

Date L. Masae Kawamura, M.D.
ACET Chair

_____ _____

Date Michael E. Fleenor, M.D., M.P.H.
Acting ACET Chair (2/16/2006)